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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,669	10/22/2001	Huy D. Phan	015916-288	2418

7590 12/23/2003  
Henricks, Slavin & Holmes LLP  
840 Apollo Street, Suite 200  
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EXAMINER

VRETTAKOS, PETER J

ART UNIT	PAPER NUMBER
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3739

13

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/045,669

Applicant(s)

PHAN, HUY D.

Examiner

Peter J Vrettakos

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21, 23-28 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15, 16, 20, 23, 25 and 28 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 17-19, 21, 24, 26, 27 and 32-36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

The instant action is final.

Claims 22 and 29-31 are cancelled.

Claims 1-21, 23-28, and 32-36 are pending.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-7 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaer in view of Swartz et al. ('654).

#### Independent claim 1

Schaer et al. (Schaer) discloses a soft tissue coagulation device (fig. 3), comprising:

a shaft (includes 28 and 64) defining a distal end and including an outer structure formed from material;

at least one energy transmission device (50) supported on the outer structure in spaced relation to the distal end of the shaft; and

at least one fluid lumen (32) defined by the outer structure and located such that a portion thereof is aligned with the at least one energy transmission device.

Dependent claims

Re: claim 2, the breaks in the depicted shafts in figures 2, 7, and 11-15 indicate that the length of the device is varying. Under this supposition, the Examiner contends that the shaft can be construed as being "relatively short".

Re: claim 3, Schaer discloses a portion of the shaft that is relatively stiff (col. 12: 40-42).

Re: claim 4, Schaer discloses the use of a mandrel (col. 24: 30-34).

Re: claim 5, Schaer discloses a shaft that includes a tubular member (58) defining a distal end and the outer structure (64) extends distally from the distal end of the tubular member as depicted in figure 3.

Re: claims 6-7: Schaer depicts a steering apparatus for deflecting the distal portion in figure 14. Figure 14 also depicts a pre-bent portion in the shaft.

Re: claims 11, 12, Schaer discloses a plurality of electrodes (fig. 3, 52).

*Schaer, however, neglects to disclose a shaft made up of thermally conductive and electrically non-conductive material such as nylon (Application's Spec page 14:20-26).*

Swartz et al. (Swartz) discloses an analogous electrosurgical catheter comprising a nylon shaft (col. 8: 34-42).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Schaer in view of Swartz by using a *nylon* shaft

(instead of Pebax, or an equivalent). The motivation would be to provide an alternate material choice for a shaft as well as to promote heat transfer to optimize surgical conditions.

2. Claims 15,16, 20, 23, 25, 28, are rejected under 35 U.S.C. 103(a) as being unpatentable over Imran ('922).

Imran discloses a short probe comprising:

a non-conductive shaft (12) with an outer structure (also 12) formed from non-conductive material (col. 2:42);

an electrode (46, fig. 2);

a fluid inlet (41) defined by the outer structure (see figure 5);

and a fluid outlet lumen (42).

Figure 2 depicts complete re-circulation of the cooling fluid.

Similarly to Schaer, Imran is also silent with regards to the dimensions of the distance between inner and outer lumen surfaces, as well as wall thickness and which of the two is greater, as submitted in independent claim 15. *However*, these parameters (simple dimensions) could be determined through routine experimentation. In the event that the Applicant's disclosed parameters (qualitative) are optimal, then the parameters would be obvious in light of Imran.

Re: claim 20, Imran implies a steering mechanism with the disclosure of a wire lumen (43).

Re: claim 23, Imran discloses a non-conducting tip member (52, col. 3:11-16, figure 2).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Imran. The motivation to do so would be to provide a cooled electrode ablation device that can be used in surgical applications.

3. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaer in view of Swartz et al. and further in view of Imran ('922).

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify Schaer in view of Swartz et al. and further in view of Imran. The motivation to do so would be to provide a cooled electrode ablation device that can be used in surgical applications.

### ***Response to Arguments***

Applicant's arguments filed 11-18-03 have been fully considered but they are not persuasive.

#### **Independent claim 1**

The Examiner has presented Swartz because it discloses in a device analogous to Schaer; a *nylon* catheter body (col. 8:34-49). On a similar note, as written in the Applicant's specification page 14:21-26 *nylon* can be used to produce a catheter shaft that is relatively high in thermal conductivity and substantially electrically nonconductive.

To this end, by providing a nylon catheter the Office has presented art that makes obvious the Applicant's invention as currently claimed.

On the other hand, the Applicant submits that the nylon types disclosed in the Specification are two very specific types of nylon and that Swartz neglects to mention the heat transfer properties of the "nylons". Therefore, the Applicant argues the disclosure of a nylon catheter does not make obvious the Applicant's invention. However, the Office maintains that as independent claim 1 is currently written, "relatively high in thermal conductivity" is too broad in nature to obviate rejections based on the Applicant's arguments. In this instance the Office maintains that providing a nylon catheter is sufficient to make obvious the Applicant's claims of a material with relatively high thermal conductivity. The Applicant would further their cause by indicating to what amount is the device's thermal conductivity compared to as "high". To what is it "relative"? The Examiner notes respectfully, that the phrase is relativistic (subjective). Inclusion into the claim of the actual amount of thermal conductivity that characterizes the device's shaft such as that in claim 32 *might* help.

Independent claim 15

The amendment has obviated the prior rejection. New art (Imran) is presented above, which discloses a probe with complete re-circulation of cooling fluid.

***Allowable Subject Matter***

Claims 13,14, 17-19, 21, 24, 26-27, and 32-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

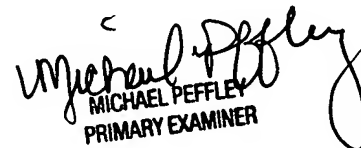
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Vrettakos whose telephone number is 703 605 0215. The examiner can normally be reached on M-F 9-6.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on 703 308 0994. The fax phone numbers for the organization where this application or proceeding is assigned are 703 746 7013 for regular communications and 703 746 7013 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0858.

Pete Vrettakos  
December 20, 2003



MICHAEL PEFFLEY  
PRIMARY EXAMINER